

ENVIRONMENTAL ASSESSMENT
IRONTON GYPSY MOTH CONTROL PROJECT

Lawrence and Scioto Counties, Ohio

U.S. Department of Agriculture, Forest Service, Wayne National Forest

U.S. Department of Agriculture, Forest Service, Northeastern Area State and Private Forestry

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I. PURPOSE AND NEED FOR ACTION

A. Proposed Action:

The United States Department Of Agriculture, Forest Service (USDA-FS), including both the Wayne National Forest and the Northeastern Area State and Private Forestry, in cooperation with the Ohio Department of Agriculture (ODA) proposes to treat an area of gypsy moth (*Lymantria dispar* L.) infestation on approximately 30,543 acres of intermixed National Forest System (NFS) lands, Ohio State Forest land, and privately owned lands in Lawrence and Scioto Counties, Ohio. The proposed treatment area includes 17,116 acres on the Ironton Ranger District of the Wayne National Forest, 2,745 acres on the Dean State Forest, and 10,682 acres of private land. The objective is to slow the rate of spread of this regulated forest pest. The treatment area is located within a much larger "Slow the Spread" project area that covers approximately 88.94 million acres in 8 states (see Appendix A). The proposed action consists of one aerial application of pheromone flakes containing the gypsy moth mating disruptant (tradenname Disrupt II, Hercon Environmental Co., Emigsville, PA). The pheromone flakes would be applied at the rate of 15.2 grams of active ingredient per acre. The specific location of the proposed treatment area is shown on the attached map (Appendix A).

Male moth trapping survey results indicate that a contiguous but relatively isolated low-density, gypsy moth population occurs within the treatment area. Pheromone flakes have been shown to be effective in managing low-density populations of gypsy moth by saturating the area with enough pheromone sources that the male is unable to find and mate with female moths (Leonard et al, 1992; Webb et al, 1988; and Kolodny-Hirsch and Schwalbe, 1990). Without intervention, low-level gypsy moth populations will become established and contribute to the rate of spread of gypsy moth within the forest.

The proposed treatment would be implemented by aerial application under the direction of USDA-FS and ODA personnel. The proposed treatment in this analysis would likely take place in June 2001, in order to synchronize the aerial application with the most susceptible life stage of the gypsy moth. The treatment will be followed by two years of male moth trapping to evaluate the effectiveness of the mating disruption technique. Followup treatment could be conducted in 2004 based upon the monitoring for male moths.

B. Need for Action:

The National Forest portion of the proposed fronton treatment block is located on the fronton Ranger District of the Wayne National Forest. Direction in the Wayne National Forest Land and Resource Management Plan (Forest Plan) is to promote an integrated pest management program to prevent and control insect and disease infestations (p.4-3 & 4-53).

The treatment block is within Management Area 2.3, 3.1, 3.3, and 8.2 in the Forest Plan. The purpose of Management Area 2.3 is to provide wildlife habitat for a variety of wildlife, provide hardwood trees for products on a sustained yield, provide various dispersed recreation, and provide off-road vehicle (ORV) trails. The purpose of Management Area 3.1 is to maintain wildlife habitat diversity, provide high quality hardwoods on a sustained yield, and provide dispersed recreation. The purpose of Management Area 3.3 is to provide wildlife habitat diversity, provide high quality hardwoods on a sustained yield, and provide dispersed recreation. The purpose of Management Area 8.2 is to protect and study unique natural areas.

Since the gypsy moth was accidentally introduced into Massachusetts in 1869, it has steadily expanded its range west and southward. Today the quarantine regulated area considered to be generally infested by this hardwood defoliator occupies all or parts of 16 northeastern states. Prior to 1965, the rate of spread of this pest was estimated at 3 to 9 km (kilometer) per year, or 2 to 6 miles per year (Liebhold et al 1992). The spread rate is somewhat consistent with the natural dispersal capabilities of gypsy moth, which is accomplished via wind dispersal of small caterpillars (Taylor and Reling 1986). Since 1965, however, the estimated rate of spread has increased to 21 km per year (13 miles per year). This may be influenced by the increased mobility of humans, which may result in more frequent short and long range artificial movement of various life stages of this pest.

This apparent increase in the rate of spread in the past thirty years is of concern because the first outbreak, as gypsy moth moves through a previously un-infested area, is usually the most severe and often results in the need for large scale suppression programs. In fact, an economic analysis conducted to calculate the benefits of a reduced rate of spread estimates potential benefits ranging from 6 to 32 million dollars per year, depending on how much the rate of spread is reduced.

The accrued benefits are primarily due to the avoidance of future suppression costs as gypsy moth moves into and through new areas. The Slow the Spread (STS) project was designed to determine the feasibility of using integrated pest management (IPM) strategies to slow the spread of the gypsy moth over large geographic areas. The Final Environmental Impact Statement for the Appalachian Integrated Pest Management (USDA 1989) defines IPM as a process for selecting strategies to regulate forest pests to achieve resource management objectives (p.VII-6). These strategies include the planned and systematic use of detection, evaluation and monitoring techniques; and all appropriate tactics needed to prevent or reduce pest-caused damage and losses to levels that are economically, environmentally and aesthetically acceptable.

1. Background on the Slow the Spread Pilot Project (STS): The STS project was initiated in 1992 in selected areas in advance of the leading edge of defoliating gypsy moth populations. The STS project objectives are to:

- a. Demonstrate that currently available technologies, when implemented comprehensively over a wide geographic area, will slow the rate at which gypsy moth spreads, and
- b. Assess the technological, economic, ecological and environmental viability of implementing an operational STS program and,
- c. Implement a plan for integration of STS technology into a national strategy for suppression of the gypsy moth, assuming the STS project is successful.

Traditional management of the gypsy moth is targeted at defoliating populations within the area of general infestation, or at the other extreme, management is targeted at isolated infestations that are well removed from the area of general infestation. In the first case, the objective of treatment is to suppress gypsy moth populations below damaging levels in order to protect resources such as shade trees in residential or recreation areas. In the second case, the objective of treatment is to retard the long distance spread that occurs when gypsy moth life stages are accidentally moved by humans to areas well beyond the generally infested area.

The strategy of the STS project is different from either of the scenarios described above. Local, relatively short range spread occurs naturally along the leading edge of gypsy moth populations

each spring when the caterpillars hatch and disperse. However, a certain amount of human aided local movement of gypsy moth occurs as well, which may account for some of the 21 km/year rate of spread. This results in the establishment of small pockets of low-density infestations that are located in advance of the leading edge of gypsy moth populations. These pockets of infestation are generally not yet at damaging levels. The risk in leaving them un-treated is that they will continue to grow, coalesce and contribute to more rapid spread. Therefore the objective of STS is to intensively monitor for these low-density, well separated populations. Populations that are detected and meet treatment criteria would be evaluated for treatment. Although all available tactics to control gypsy moth are considered, emphasis is placed on the most environmentally sensitive tactics that meet management objectives.

The STS strategy has a solid economic justification based on delay of damage and management costs that will occur as gypsy moth spreads into previously uninfested areas. Economic impacts that are likely as gypsy moth spreads into new areas include: reduced timber growth, fewer visitors and loss in recreation area revenues, increased cost of agency activities against gypsy moth, and increased costs to landowners (Leuschner, 1991 and Leuschner et al, 1996).

Gypsy moth populations tend to be cyclic primarily due to the effects of weather, pathogens, and predators. This is characteristic of high-density gypsy moth populations in areas considered generally infested where periodic outbreaks may cause tree defoliation. Suppression activities may be/have been used to reduce the threat of tree defoliation and possible tree mortality.

The Slow the Spread (STS) area is considered a transition area between the gypsy moth generally infested and uninfested areas. Typically the populations found in the STS area are low-density; though similar weather conditions, pathogens and predators may be present, the low-density populations do not exhibit the cyclic patterns found in the high-density populations such as those found in the generally infested area. The optimum time to treat these low-density infestations is before they become established and spread into uninfested areas. Without intervention, these populations will continue to grow and contribute to the rate of spread. Eventually, without disruption, populations will reach defoliating levels.

2. Objectives of the Proposed Action: This proposal is needed to eradicate the well separated, low-density population on selected National Forest System lands and adjacent private lands with the objective of reducing the rate of spread within the STS project boundaries. Implementation of the proposed action will prevent these low-density populations from growing rapidly and delay the damage and management costs that occur as gypsy moths infest new areas.

3. History of the Infestation in the Proposed Project Area: The project area has never been treated for gypsy moth.

Pheromone flakes have been used in the past in Ohio, West Virginia, and Virginia with successful results. Most recently, in June 2000 three blocks were treated with pheromone flakes in Greene, Mercer, and Pike counties, Ohio.

C. Relationship to other Decisions:

This Environmental Assessment (EA) is tiered to the 1995 Final Environmental Impact Statement (FEIS) on "Gypsy Moth Management in the United States: a cooperative approach" (USDA 1995). The 1995 FEIS describes various alternatives for managing gypsy moth populations nationwide and includes an analysis of the environmental effects and human health

risks associated with each alternative and the treatments which could be used. The preferred alternative calls for implementing a suppression strategy in the generally infested area to reduce damage caused by outbreaks of the insect; implementing an eradication strategy in the uninfested area to prevent establishment of isolated infestations of the insect; and implementing a slow the spread strategy in the transition area to slow the rate of spread of the insect from the generally infested area. The FEIS requires that site specific environmental analyses be conducted on a project by project basis.

This EA is also tiered to the Wayne National Forest Land Resource Management Plan. The Forest Plan provides general direction for managing insect pests like the gypsy moth. The Forest Service manages insect and disease populations by utilizing the principles of integrated pest management.

This EA and the associated decision to be made are specific to STS activities on National Forest System (NFS) lands and intermixed state and private land as described in this analysis. They do not relate to other STS or cooperative suppression activities outside the scope of this EA, conducted by ODA solely on state and private land and covered in other EA's and decisions specific to those projects. There will be no combined cumulative environmental effect because treatment blocks in these proposals do not overlap with the proposed action.

D. Scope of the Environmental Analysis:

This EA presents the no-action alternative and an Integrated Pest Management (IPM) alternative that is designed to meet the objectives of the STS Project and to meet the Forest Plan direction for IPM. This EA discloses the direct, indirect, and cumulative effects of the alternatives considered in detail. This EA does not consider issues determined to be outside the scope of this analysis (see Appendix B) and any issues that are truly related to larger geographic areas and not limited to the general area proposed for treatment (i.e. global, regional, or forest-wide issues).

This analysis includes follow-up monitoring and evaluation of the effects of the proposed actions on gypsy moth populations. Post treatment pheromone trapping will be used to determine if the selected treatments were effective and whether follow-up treatments will be required in the future.

E. Decision to be made:

There are two decisions to be made. The first decision is whether to treat a low-density gypsy moth population on approximately 17,116 acres of NFS lands on the Ironton Ranger District. The responsible official for the decision to treat NFS lands is the Ironton District Ranger, Wayne National Forest, Pedro, OH. The second decision is whether to provide funding for the state of Ohio to treat adjacent state and private lands totaling approximately 13,427 acres. The responsible official for the decision to approve federal funds to treat adjoining state and private lands is the Field Representative, Northeastern Area State and Private Forestry, Morgantown, WV.

F. Lead and Cooperating Agencies and Their roles in the Analysis:

This EA is a cooperative effort between the State of Ohio, Ohio Department of Agriculture, Division of Plant Industries, Plant Pest Section; USDA, Forest Service, Wayne National Forest;

and USDA, Forest Service, Northeastern Area State and Private Forestry. The USDA-FS is the lead agency responsible for the scope and content of this analysis, and the decision to be made regarding Federal funding for this project. ODA is responsible for gypsy moth eradication and low-density suppression activities on state and private lands within the STS project area within the state of Ohio.

G. Authorizing Laws and Policies for Lead and Cooperating Agencies:

The Cooperative Forestry Assistance Act of 1978 provides the authority for Federal and State cooperation in management of forest insects and diseases.

The Ohio Plant Pest Law Section 927.71 gives the Director of Agriculture the authority to quarantine the state or any portion thereof, which he has done for gypsy moth effective January 1987. Section 901:5-52-07 of the Ohio Gypsy Moth Quarantine gives the Director of Agriculture the authority to conduct suppression activities.

The Ohio Pesticide Law (effective January 1, 1977) sets the standards for labeling, distributing, and registering pesticides; classifying restricted-use pesticides, certifying pesticide applicators; licensing pesticide dealers, and businesses.

The Federal Insecticide, Fungicide, and Rodenticide Act of 1947 (7 U.S.C. § 135 et seq.) requires all insecticides used in suppression programs be registered with the Environmental Protection Agency. The Act requires compliance with pesticide application guidelines and provides safety standards for workers exposed to pesticides. The Federal Environmental Pesticides Control Act of 1972 amended this Act.

The National Environmental Policy Act (42 U.S.C. § 4321 et seq.) requires detailed and documented environmental analysis of proposed Federal actions. This Act requires the federal government to consider environmental impacts when implementing or approving a project. Environmental impact statements and environmental assessments are required to identify and evaluate the environmental impacts of all reasonable project alternatives. Court decisions have interpreted actions involving Federal money as Federal actions.

The Endangered Species Act (16 U.S.C. § 1531 et seq.) prohibits Federal actions from jeopardizing the existence of Federally listed threatened or endangered species. The Act also prohibits actions that adversely impact designated critical habitats. Federal agencies must consult with the U.S. Fish and Wildlife Service to determine the potential for adverse affects. The law also requires Federal agencies to conduct a biological assessment before undertaking a project.

The National Historic Preservation Act of 1966 recommends that Federal agencies proposing any action to consult with the State Historic Preservation Office. The analysis must determine the impact of the action on the existence and significance of cultural and historical resource sites.

Executive Order #11988 (24 May 1977) requires Federal agencies to evaluate the potential effects of all actions it may take in a floodplain. Agencies must take into account floodplain management when evaluating and developing land use plans. This review enables Federal agencies to guarantee wise floodplain development.

Executive Order #11990 (24 May 1977) requires Federal agencies to avoid adversely impacting wetlands. This policy establishes an evaluation process to prevent damage to the Nation's wetlands.

Executive Order #12898 (11 Feb. 1994) on environmental justice, focuses Federal attention on the environmental and human health conditions of minority and low-income populations with the purpose of attaining environmental protection for all communities.

The Ohio Department of Natural Resources, Division of Wildlife protected species laws 1501:18-1-03 (plants) and 1501:31-23-01 (animals) requires ODA to have all proposed treatment areas reviewed by the agency to assess the potential impacts to state listed threatened or endangered species of the proposed action. See appendix C for a copy of the letter from the agency consulted.

H. Scoping and Issues:

Scoping was conducted by the Forest Service to determine the issues related to the proposed action. The Forest Service mailed scoping letters on December 22, 2000, to interested and affected agencies, organizations, adjacent land owners and individuals on the Ironton Ranger District's scoping mailing list to inform them of the proposed action and request their input. All comments received are contained in the analysis file at the District office. Six comments were received. Based on public response and management concerns, the following significant issues were identified and are addressed in this analysis:

1. Potential effects of the treatment on aquatic ecosystems (including wetlands and floodplains), terrestrial ecosystems, species diversity, and Forest Management Indicator Species within these systems.
2. Potential effects of the treatment on threatened, endangered, sensitive, or locally rare species.
3. The effects of the proposed treatment on human health.

II. ALTERNATIVES INCLUDING THE PROPOSED ACTION

This chapter describes the alternatives that were analyzed during the NEPA process. The 2001 Forest Health-Biological Evaluation, views of interdisciplinary team members, and public input were used to develop these alternatives. All available treatments were considered, but priority was given to the use of treatments considered to be the most environmentally sensitive.

A. Alternatives Considered in Detail:

Alternative 1 - Pheromone Flake Treatment (Proposed action) In this alternative, the Forest Service would cooperate with State agencies to treat low-density gypsy moth populations on intermixed Federal and private lands in an IPM effort to slow the rate of spread of gypsy moth by implementing one of the treatment options available under the slow the spread strategy.

Specifically, 30,543 acres would be treated with pheromone flakes to control the growth and spread of the gypsy moth population in this area. The proposed treatment would be made by a private aerial contractor under the direction of USDA-FS and ODA personnel. The pheromone flakes would be applied at the rate of 15.2 grams of active ingredient per acre. Tables 1 and 2 summarize information about the alternatives.

TABLE 1. ACRES OF PROPOSED TREATMENT - ALTERNATIVES 1 &2

Alternative	#1 Pheromone Flakes	#2 (no action)
National Forest Acres Treated	17,116	0
Private Land Acres Treated	13,427	0
Total Acres Treated	30,543	0

Alternative 2 (No Action) In this alternative, no action would be taken to slow the rate of spread of gypsy moth in the general forest areas on the Ironton Ranger District of the Wayne National Forest, and adjacent state and private lands in Ohio. The populations would continue to be monitored by pheromone trapping.

B. Mitigation Measures:

The following precautionary or mitigating measures would be taken during the aerial application of pheromone flakes to enhance the effectiveness of the treatment under alternative 1 and reduce the risk of off-site impacts. More detailed descriptions and insecticide labels and Material Safety Data Sheets (MSDS) can be found in each of the cooperating agencies Health and Safety Plan which can be obtained at the Forest Supervisor's Office, the Ironton Ranger District Office, and the ODA office.

Application

To minimize drift of the pheromone flakes and enable uniform distribution in the tree canopy, application of the pheromone flakes would be made when winds are between two and fifteen miles per hour. Although the flakes tend to be much larger, therefore heavier than insecticide droplets, drift can still occur. Foliage cannot be dripping wet and no threat of rain can exist within one hour following application. This is to insure that the pheromone flake sticker would adhere to the foliage and has adequate time to dry. Since the pheromone flakes are not affected by temperature and relative humidity, these environmental conditions would not have a direct

effect on the application of the flakes; however, these conditions would be monitored to predict storm patterns and ensure the safety of the pilots. Application conditions would be continually monitored by ground personnel in the treatment blocks. Application heights would range between 50 and 75 feet over treetops, depending on aircraft type and terrain.

The application pilot and observer aircraft pilot would conduct a pre-treatment flight of the proposed treatment blocks to become familiar with boundaries. Topographical maps would be provided to the application and observer pilots to assist in identifying the area boundaries and any hazards that might be associated with the aerial treatment of the blocks. The spray pilot would have radio communication with the airbase, observer aircraft, or personnel in the blocks at all times. Ground crews assigned to the blocks would monitor application of the flakes and provide weather updates. Observer pilot would provide flight following to the airbase for safety.

The application aircraft would be required to provide a Differential Global Positioning System (DGPS) which would assist the pilot in locating the treatment blocks, identify block boundaries, and insure even coverage throughout the blocks.

Environmental

Pheromone flakes would be applied according to label directions. All label warnings and restrictions would be strictly adhered to by the applicator. No pheromone flakes would be applied directly to open bodies of water.

Public Notification

During project implementation, access roads in the areas proposed for treatment would be posted to notify persons entering in and around the areas. Notification would include a map of the area to be treated and expected time of treatment. Notification would be posted 24 hours prior to the application. Notification to the public would also be provided by news release to local electronic and print media the week prior to probable implementation. ODA would be responsible for public notification for private lands proposed for treatment. ODA would provide notification for treatment through local newspapers and would also notify all landowners within the treatment blocks in advance of the treatment.

C. Monitoring:

The treatment block would be monitored using pheromone baited traps for two years post-treatment to evaluate the effectiveness of the treatment. If no male moths are trapped in the first year post-treatment (2002), a evaluation trapping grid would be placed throughout the block in the second year (post-treatment/2003). The second year of post-treatment trapping data would be used to determine if the treatment was successful and whether follow-up treatments would be required in 2004. The project would be considered successful if:

- a. No male moths are caught in the second year post-treatment.
- b. No follow-up treatments would be required in the block in 2004.

D. Alternatives Eliminated from Detailed Study:

During the environmental analysis several other methods of managing gypsy moth populations were considered but eliminated from detailed study. These methods and the rationale for their elimination are as follows:

Alternative 3. This alternative includes the aerial application of the gypsy moth-specific virus insecticide product, Gypchek (trade name), in the proposed treatment area to slow the rate of spread of gypsy moth. Field testing indicates that this virus insecticide shows great promise. However, because of the manner in which the virus is transmitted among insects during epizootics caused by the application of the virus, Gypchek is most effective in moderate to high density (300 to 5,000 egg masses per acre) populations of the gypsy moth. These density populations do not exist within the project area. Since commercial quantities of the product are in limited supply, Gypchek is most useful in areas where a gypsy moth-specific insecticide is needed to protect sensitive, threatened or endangered plant or animal species. Although Gypchek has been shown to be effective in reducing moderate to high density (300 to 5,000 egg masses per acre) populations of gypsy moth, there is little known about its efficacy in low-level populations. Male moth trapping information for the treatment areas indicate low-density, small pockets of gypsy moth infestations; therefore, it is not known how effective this treatment may be. For these reasons this alternative was not considered in detail.

Alternative 4. This alternative includes the application of the gypsy moth pathogenic fungus, *Entomophaga maimaiga*. At this time, this fungus is not a registered biological insecticide. During the Appalachian Integrated Pest Management Gypsy Moth Demonstration Project (AIPM), studies showed it to be a potential biological tool against gypsy moth; however, as an introduced organism its movement is regulated by Animal Plant Health Inspection Service (APHIS) and State Departments of Agriculture. Currently, no operational releases or introductions are being supported until more information is known about the natural spread of the fungus and its impacts to selected lepidoptera. For these reasons this alternative was not considered in detail.

Alternative 5. This alternative includes the release of predators and parasites to manage gypsy moth populations throughout the project area. Previous studies are not conclusive as to the efficacy of this control technique on low-density populations (FEIS, Gypsy Moth Management in the United States, p. 2-7). For this reason this alternative was not considered in detail. It is important, however, to recognize that within any ecosystem that specific and non-specific predators and parasites of gypsy moth may contribute to the long-term biological control of the gypsy moth.

Alternative 6. This Alternative would use two aerial applications of the biological insecticide, *Bacillus thuringiensis* var. *kurstaki*, (Btk) on the proposed treatment area. Btk is a Lipidoptera (butterfly family) specific insecticide and is very effective when used as part of the slow the spread strategy to reduce or eradicate low-density populations of the gypsy moth. However, the STS project is committed to using the most environmentally sensitive tactic that will meet project objectives and, in this case, project objectives can be met using a gypsy moth-specific tactic (pheromone flakes). Therefore the use of Btk was not considered in detail.

TABLE 2. COMPARISON OF ALTERNATIVES RELATIVE TO THE SIGNIFICANT ISSUES

Significant Issue by Number	Alternative 1	Alternative 2 (no action)
1. Adverse environmental effects on aquatic and terrestrial ecosystems, diversity and Management Indicator species within these systems:		
a. Aquatic (wetlands and floodplains)	None	None
b. Terrestrial	None	None
c. Diversity	None	None
d. Management Indicator Species	None	None
2. Adverse environmental effects to threatened, endangered, sensitive or locally rare species:		
	None	None
3. The effects of the proposed treatment on human health:		
	None	None *

* If left untreated the gypsy moth would be considered a nuisance to human health.

III. AFFECTED ENVIRONMENT

The Ironton treatment block is mostly forested lands with moderate to steep side slopes. It is located primarily in the headwaters of Pine Creek watershed. A very small portion is located in Symmes Creek watershed. A few small ponds are found within the area. Many have been stocked with black bass and panfish. Elevations range from approximately 620 to 1,050 feet above sea level. State Route 93 provides access through the center of the block. This area is within the Unglaciated Allegheny Plateau Province.

The vegetation consists of an upland hardwood forest types. The forest cover types include pine, mixed pine-hardwood, oak-hickory, yellow poplar, lowland hardwood, upland hardwood, and non-forest. The hardwoods are primarily northern red oak, white oak, chestnut oak, yellow poplar and maple. The understory species are primarily small seedlings/saplings of the same species as the overstory, with and other low bush species also present. The adjacent private land has similar vegetative cover as listed above.

The forest cover types on National Forest land were obtained from the CDS data base as follows:

Forest Cover Type	Percent of Project Area	Gypsy Moth Host Preferences
Pine	5.2	Resistant
Mixed Pine-Hardwood	2.0	Resistant
Oak-Hickory	73.5	Susceptible
Yellow Poplar	0.5	Immune
Lowland Hardwood	2.7	All Categories
Upland Hardwood	11.7	Resistant
Non-forest	4.4	Immune
Total	100.0	

The age class distribution on National Forest land is as follows:

Age Class	Percent of Area
0—9	0.9
10—39	23.8
40 — 80	24.1
81— 99	24.2
100 +	27.0
Total	100.0

A variety of terrestrial wildlife habitats are found in the area. Bird surveys conducted in the area indicate that the most common upland forest birds include the red-eyed vireo, ovenbird, Acadian flycatcher, wood thrush, and scarlet tanager. Common birds in grass and brushland include the white-eyed vireo, blue-winged warbler, rufous-sided towhee, song sparrow, indigo bunting, and goldfinch. Common wetland birds include the great blue heron, wood duck, tree swallow, common yellowthroat, and red-winged blackbird. Surveys in the area have found the following amphibians common: spring pepper, green frog, bullfrog, American toad, gray treefrog, cricket frog, red-spotted newt; and two-lined, Jefferson, spotted, redback, longtail, and dusky salamanders. Common reptiles include fence lizard, box turtle, snapping turtle, painted turtle, hog-nosed snake, ringneck snake, water snake, black rat snake, and copperhead. Common

mammals include opossum, chipmunk, woodchuck, gray squirrel, beaver, muskrat, gray fox, raccoon, and white-tailed deer.

Two special Areas, Young's Branch and Waterfall Cove, are located within the project area. Pest management is permitted as necessary to provide for public health and safety and to protect adjacent private property, or to protect areas values (Forest Plan, p.4-152).

IV. ENVIRONMENTAL EFFECTS OF THE ALTERNATIVES

The environmental effects of the alternatives relative to the significant issues identified in the first section of this assessment document are described below.

A. Direct and Indirect Effects

Alternative 1 (Pheromone Flakes): In the short term (4-7 years), this alternative would suppress existing gypsy moth populations and reduce the potential for spread to uninfested areas. This alternative would also delay the date when gypsy moth becomes firmly established throughout this area. In the long term, however, the advancing front of defoliating populations of gypsy moth would reach this area and some local populations would reach levels where defoliation could be severe with the same anticipated effects as described in the no action alternative (Alternative 2).

With this alternative, existing predators, parasites, virus and pathogenic fungus would also gradually come into play as biological control factors for gypsy moth in the forest ecosystem. However the establishment of the virus, fungus or any other gypsy moth specific regulating factor may be delayed when compared to the No Action alternative because they are dependent on the gypsy moth for their survival.

"The toxicity of insect pheromones to mammals is relatively low, and the U.S.-Environmental Protection Agency requires less rigorous testing of these products than it requires of insecticides" (USDA, Forest Service 1998). Disparlure (formulated into the pheromone flake) is a chemical sex-attractant that modifies the male moth behavior and ultimately results in mating disruption between the male and female moth. Toxicity data indicates that disparlure is not toxic to mammals, birds, or fish. The pheromone flakes are gypsy moth-specific and due to the mode of action of disparlure it is unlikely that it is toxic to other invertebrates. Disparlure is not known to directly affect forest health, water quality, microclimate, soil productivity and fertility. There is no evidence to indicate that the sticker (Gelva RA2333) used to apply the flakes has any impacts on non-target species (USDA, Forest Service, FEIS, 1995 & USDA, Forest Service, 1998).

1. Aquatics - Toxicology tests on trout have shown that excessive levels of disparlure may impact trout (LC50 > 100 mg/liter). The proposed application rate of flakes containing the active ingredient disparlure (15.2 g ai/ac) is several orders of magnitude below the dose where lethal concentrations might begin to occur assuming application were made directly into open water. Pheromone flakes are not labeled for use over open bodies of waters, and all applications would be made according to label directions. If however, the pheromone should enter an aquatic ecosystem as a result of translocation such as a storm event, the amount of pheromone present would be so low that it would have no effect on aquatic species. Overall pheromone flakes have not been shown to impact aquatic ecosystems. The proposed method of pheromone flake application (via aircraft) should not in any way impact the physical characteristics associated with wetlands and floodplains. Thus the proposed pheromone flake treatments under this alternative would be in full compliance with Executive Orders 11988 and 11990.

2. Terrestrial - The synthetic pheromone is chemically identical to the natural pheromone being emitted by the female gypsy moth. There is no information to indicate that the synthetic or natural pheromone has any impacts on non-target species. Pheromone flakes are a gypsy moth specific tactic and have not shown any adverse impacts on terrestrial ecosystems other than the gypsy moth (FEIS-1995, Appendix G, p 5-19, 9-13). Spreading pheromone flakes should not

have any direct effects or cause any adverse indirect effects on any terrestrial wildlife species. Beneficial indirect effects may occur because severe defoliation of oaks would be delayed, thereby allowing the continued supply of acorns and canopy cover for wildlife.

3. Diversity - Use of the pheromone flakes would not have direct impacts on diversity. No change in species richness would be expected. The direct effect would be to oaks and oak mast production at the current level.

4. Management Indicator Species (MIS)- The Forest Plan uses Management Indicator Species (MIS) as a gauge for determining impacts of management actions and the health of the ecosystem (Forest Plan, Appendix B). A management indicator species is a plant or animal which, by its presence in a certain situation, is believed to indicate the habitat conditions for many species. MIS species that occur in the proposed treatment area are cerulean warbler, pileated woodpecker, white-eyed vireo, common yellowthroat, field sparrow, ruffed grouse, eastern bluebird, and wood duck. Spreading pheromone flakes should not have any direct effects or cause any adverse indirect effects on any terrestrial wildlife species. In the short-term, habitat conditions should remain as they are and no changes in MIS populations would be expected.

5. Federal Threatened and Endangered Species (T&E)- The U.S. Fish and Wildlife Service and the Ohio Natural Areas and Preserves programs were contacted regarding the proposed treatment and the occurrence of threatened and endangered species. Threatened and Endangered species for the Wayne National Forest include Indiana bat, bald eagle, American burying beetle, fanshell, pink mucket pearly mussel, running buffalo clover, northern monkshood, and small whorled pogonia. The Indiana bat is the only species that has been found with the project area. Regional Sensitive Species found within the project area include cerulean warbler, Henslow's sparrow, Olympia marble, butternut, and rock skullcap. Two Biological Evaluation (BE) were prepared to determine the potential effects to threatened, endangered, regional sensitive rare species. The animal BE determined that project implementation should not adversely affect any of the Federal Threatened or Endangered Species, nor contribute to the loss of viability or cause to move toward federal listing of any Regional Sensitive Species. The plant BE determined that project implementation will have no effect on any federally listed plant species and that it will have no effect on the continued viability of any Regional Forester's Sensitive Species. A copy of the BE's are contained in the project file at the Ironton Ranger District office.

6. Human Health- Pheromone flakes would be applied by aircraft. The treatment would take place in late June. The pheromone flakes would be applied to approximately 30,543 acres of NFS and state and private land at a rate of 15.2 grams of active ingredient per acre. This equates to 85 grams (or less than a 4 ounce half-cup) of the pheromone flake product with 2 fluid ounces of sticker per acre. The plastic component of the flake used to "carry" the pheromone is a polyvinyl coated (PVC) film that eventually breaks down anywhere from 10 to 15 years after entering the environment. The speed of deterioration is dependant upon the amount of ultraviolet (UV) light that hits the polymer and, to a lesser degree, the amount of freezing and thawing the polymer experiences. Upon deterioration, the polymer breaks down into hydrogen, carbon, and chloride. The chloride component usually combines with metals present in the soil, while the hydrogen and carbon are free to combine in many ways.

Plastic from people littering along the roads within the treatment areas in the past, present and future is expected to contribute more significantly to plastic accumulation in the fronton area than that from the proposed pheromone flake application. Cumulatively, the added plastic is not considered to be significant since very small flakes would be scattered over the treatment block.

Pheromone flakes incorporate the use of the synthetic female gypsy moth mating attractant (disparlure) to disrupt mating activity. Disparlure is employed extensively as a lure in mass trapping, monitoring and delimiting gypsy moth populations. The synthetic mating attractant is impregnated into tiny layered polymer (plastic) flakes that are 1/32 inch x 3/32 inch in size, thus the name pheromone flakes. A sticker, Monsanto's Gelva Multipolymer Resin Emulsion 2333, is applied to the flakes as they are dispersed from the aircraft which aids in distributing the flakes throughout all levels in the forest canopy where mating could potentially occur. When applied at the specified rate, coverage equates approximately to two and a half (2.5) flakes per square foot. Typically, less than ten percent of the flakes (green in color) reach the ground at application, the rest are intercepted by the forest canopy. Since the flakes are so small and applied in such small amounts, and because most of the flakes are intercepted by the upper canopy, they are not expected to be noticed by the casual observer.

A quantitative assessment of risk from disparlure was not conducted because of its low toxicity to vertebrates and specificity to gypsy moth. As used in mating disruption or mass trapping treatments, disparlure is not likely to cause changes in non-target organisms, forest conditions, water quality, microclimate, or soil productivity and fertility (FEIS-1995, Vol II, 4-67). The toxicity of insect pheromones to mammals is relatively low (Jacobson 1977). Disparlure is very persistent in humans, and individuals exposed to disparlure may attract adult male moths for prolonged periods of time. This persistence is viewed as a nuisance and not a health risk (FEIS-1995, Vol, III, 8-1). In acute toxicity tests, disparlure was not toxic to mammals, birds or fish (FEIS-1995, Vol IV, 5-5). At normal application rates, concentrations of the pheromone (disparlure) impregnated in the flakes, can remain active for several years. The plastic component of the flakes can persist in the environment for 10-15 years. The flakes are registered with the Environmental Protection Agency (EPA Reg. No. 8730-46). All of the ingredients in the Gelva 2333 sticker are considered non-hazardous to public health if used as an additive in the insecticide formulation (40 CFR 180.1001).

Alternative 2 (No Action): In this alternative, no treatments would be used to slow the rate of spread of gypsy moth; consequently, populations would increase and spread via natural or artificial means to uninfested areas or add to the size of the infested area. The rate of spread is based on historical information from the generally infested area. Since 1965 the rate of spread in the Appalachians has been estimated at 13 miles (21 km) per year (Liebhold and others, 1992). Eventually populations would reach levels where defoliation could be severe. A certain amount of tree mortality, especially among the favored host, oak, could be expected following severe defoliation with a concurrent reduction in hard mast (Quimby 1987). With the reduction of favored gypsy moth hosts, the composition of the forest would ultimately change to favor tree species less preferred by the gypsy moth.

With the No Action alternative, existing predators, parasites, virus and pathogenic fungus would gradually come into play as biological control factors for gypsy moth in the forest ecosystem. These naturally occurring regulating factors are found throughout the range of gypsy moth. The virus and fungus contribute to the general collapse in dense gypsy moth populations, while parasites and predators may help to lengthen the time period between gypsy moth outbreaks. The specific and non-specific predators and parasites contribute to the biological control of gypsy moth through a long-term process of integration and adaptation into the forest ecosystem. The gypsy moth virus is found throughout the range of gypsy moth; however, in situations where the virus is not introduced via applications of the virus insecticide, Gypchek, the virus usually impacts only dense gypsy moth populations that are stressed, usually by the lack of food. The gypsy moth pathogenic fungus, *Entomophaga maimaiga*, is spread primarily by wind; however, the fungus is favored by wet spring conditions and can be effective in both high and low density

populations. It is not known at this time if increasing the area of establishment of *E. maimaiga* would have long-term impacts on the suppression, eradication or rate of spread of gypsy moth populations.

1. Aquatics - No pheromone flakes would be used so there would be no direct treatment effect on aquatic ecosystems or on the physical characteristics of wetlands or floodplains. Moist microhabitats, however, could eventually be impacted depending on the degree of defoliation and mortality. Defoliation of riparian areas can lead to changes in water temperatures.

2. Terrestrial - As previously mentioned, hard mast production by oaks would decline over time as defoliation and mortality occurs. This would cause short and long term impacts upon the capability of a given area to provide food resources to acorn consuming wildlife. Actual impacts to populations may take several decades to document. However, it is likely long term energy production from overstory and understory fruits would diminish as the oak overstory is reduced in dominance. Short term increases in fruit production by understory shrubs and herbaceous plants would occur, but long term production would likely return to levels similar to pre-moth conditions. Terrestrial wildlife species should not experience any direct effects.

Until gypsy moth populations reach defoliating levels, no significant changes in flora or fauna should occur. Some terrestrial wildlife species may experience adverse indirect effects. The proportion of oak would decline, thereby reducing the quantity of acorns available for wildlife, including the pileated woodpecker, ruffed grouse, wood duck, and black bear. Some wildlife species may experience beneficial indirect effects. Repeated defoliation would cause tree mortality, resulting in an increase in the number of snags, which could provide more nesting and roosting habitat. Increased sun reaching the understory could create a layer of dense regeneration or brush, providing better habitat for ruffed grouse and more browse for deer. Over the long term, decreased populations of small mammals, and invertebrates associated with moist ground cover conditions would likely result in areas suffering overstory mortality. Defoliation is expected to have impacts on animals that are dependent on hardwood forest canopies. For instance, birds that nest in canopies may experience increased nest predation as a consequence of defoliation (Cooper et al 1987). There is also evidence to suggest that macro-lepidopteran larval and adult richness and abundance would be reduced when defoliation occurs. Impacts would be greatest among direct competitors of the gypsy moth, e.g. spring feeding caterpillars such as notodontids (prominents) and lasiocampids (tent caterpillars and lappet moths) which consume oak foliage (Sample et al 1993).

3. Diversity - Diversity of plant life would be similar to current conditions in the near future. Eventually species richness may increase for any given geographic area with defoliation and changes in vegetation communities. District-wide however, species richness should not change tremendously. The primary change should occur in dominance of the vegetative community. Oak would be less dominant than it is now. Impacts upon the diversity of reptiles, mammals, amphibians, and invertebrates would vary spatially, but overall species richness should not change drastically.

4. Management Indicator Species - With no action, no direct effects to MIS's are expected. In the long term, a variety of effects may result due to defoliation and mortality of trees within the treatment areas. There may be adverse indirect effects to the pileated woodpecker and ruffed grouse because the quantity of acorns could be reduced. There may be beneficial indirect effects to pileated woodpecker because tree mortality could provide more nesting and roosting habitat. A more open canopy could benefit the Olympia marble. As the overstory eventually suffers some mortality, deer would benefit from increased browse. However, this may be offset by reductions

in mast production from the stress of defoliation and subsequent mortality. Within the context of the Slow-the-Spread program, the gypsy moth would eventually cause a shift in the dominance of oak within the forests, thus reducing capability of the land to provide bear and turkey with current hard mast energy levels.

5. Threatened and Endangered species (T&E) - In this alternative, no action would be taken to control the gypsy moth in the area of the Ironton Ranger District or adjacent state and private lands. The result of gypsy moth establishment and subsequent defoliation is not expected to result in habitat modification that would affect federal threatened and endangered species, or regional sensitive species. There would be no effect on Federal or State listed threatened, endangered, sensitive, and locally rare species.

6. Human Health- In the short term, under the no action alternative there would be no direct effect on human health. Once defoliation and mortality begins to occur, however, the negative effects of this alternative could include an increase in the incidence of hazard trees along the roads within the treatment blocks, and an increase in fuel levels due to the increased number of dead trees in the forest. This could increase the risk of wildfires potentially threatening National Forest lands, private lands and property.

C. Cumulative Effects

Alternative 1- The effects of pheromone flakes (mating disruption) are specific to gypsy moth; therefore, this treatment would not have any cumulative effects.

Alternative 2- Under the no action alternative gypsy moth populations would continue to increase and spread over time. Increased spread associated with the low-density populations of gypsy moth that are now established in the analysis area could result in the need for future proposed treatment projects within and around the analysis area. Within three to six years some of the existing low-density gypsy moth populations currently established within the analysis area would reach levels where defoliation could become severe resulting in some tree mortality among the favored hosts of gypsy moth, primarily oak. Eventually, natural regulating factors such as the virus and fungus would come into play, but this may not occur until after the first episode of heavy defoliation.

D. Irreversible and Irretrievable Commitment of Resources

Some resources must be committed to the operation of any suppression project. The primary irretrievable resources would be the human resources (people's time), fossil fuel, and dollars. All of these resources would be available for alternative projects if they were not used for this project.

V. AGENCIES CONSULTED

During the analysis process for the 1999 Slow-the-Spread gypsy moth project, the following agencies were contacted/consulted:

- United States Department of Interior, Fish and Wildlife Service, Endangered Species Field Office, Reynoldsburg, OH, USDI

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- Ohio Division of Natural Areas and Preserves
- Ohio State Historic Preservation Office

VI. LIST OF PREPARERS/REVIEWERS

Philip Perry- Silviculturist, Supervisor's Office, Wayne National Forest
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Kathy Flegel, Wildlife Biologist, Ironton R.D., Wayne N.F.
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Ann Cramer, Archaeologist, Supervisor's Office, Wayne N.F.
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Rebecca Ewing, Fisheries Biologist, Ironton R.D., Wayne N.F.
Steven Olson, Botanist, Tell City R.D., Hoosier N.F.
Robert Gianniny, Forest Planner, Supervisor's Office, Wayne N.F.
Jim Mickey, Gypsy Moth Program Manager, Ohio Department of Agriculture, Division of Plant Industry

VII. REFERENCES

USDA, Forest Service and Animal and Plant Health Inspection Service. 1995. Gypsy Moth Management in the United States: A Cooperative Approach. Final EIS, Volumes I to V.

USDA, Forest Service, Wayne National Forest. 1988. Land and Resource Management Plan.

USDA, Forest Service, Forest Health Technology Enterprise Team. 1998. Using Mating Disruption to Manage Gypsy Moth: A Review. FHTET-98-01.

**DECISION NOTICE
AND
FINDING OF NO SIGNIFICANT IMPACT**

**Environmental Assessment for
Ironton Gypsy Moth Control Project**

**USDA, Forest Service, Wayne National Forest
USDA, Forest Service Northeastern Area State and Private Forestry
Ohio Department of Agriculture, Division of Plant Industry**

Lawrence and Scioto Counties, Ohio

A. INTRODUCTION

An Environmental Assessment (EA) has been prepared evaluating a proposal to manage a low-density gypsy moth (Lymantria dispar L.) population for the purpose of slowing the rate of spread of this regulated pest. The proposal is to treat approximately 30,543 acres of intermixed National Forest System (NFS) land, Ohio State Forest land, and privately owned lands in Lawrence and Scioto Counties, Ohio. The proposed treatment area includes 17,116 acres on the Ironton Ranger District of the Wayne National Forest, 2,745 acres on Dean State Forest, and 10,682 acres of private land. Preparation of the EA was a cooperative effort between the Wayne National Forest, Northeastern Area State and Private Forestry, and Ohio Department of Agriculture, Division of Plant Industry.

The responsible official for the decision to treat NFS lands is Michael Baines, District Ranger, Ironton Ranger District, Pedro, Ohio. The responsible official to fund treatment on state and private land is John Hazel, Field Representative, Northeastern Area State and Private Forestry, Morgantown, WV.

The EA is tiered to the November 1995 Final Environmental Impact Statement (FEIS) prepared by the USDA, Forest Service (FS) and Animal Plant Health Inspection Service (APHIS) entitled "Gypsy Moth Management in the United States: A Cooperative Approach." The Record of Decision (ROD) was signed January 16, 1996, and selected Alternative 6 calling for consideration of financial assistance for Integrated Pest Management (IPM) to reduce the damage caused by gypsy moth suppression; to eliminate isolated gypsy moth infestations outside the regulated area (eradication); and to reduce the rate of spread of the insect in advance of the leading edge of gypsy moth populations (slow the spread). The location of the proposed action is within the USDA-FS funded Gypsy Moth Slow the Spread area.

The EA is also tiered to the Wayne National Forest Land and Resource Management Plan, as amended.

B. SCOPING AND PUBLIC INVOLEMENT

Scoping was conducted by the Forest Service and Ohio Department of Agriculture to determine issues related to the proposed action. The Forest Service mailed scoping letters on December 15, 2000, to interested and affected agencies, organizations, and individuals. Seven comments from scoping were received. All comments received are in the analysis project file located at the Ironton Ranger District and the Wayne National Forest Supervisor's Office. A legal ad was published in the Ironton Tribune on December, 22, 2000. The Ohio Department of Agriculture held a public meeting at Dean State Forest on March 1, 2001. The public meeting was attended by 3 Division of Forestry employees. Based upon public response and management concerns, the following significant issues were identified were addressed in the analysis for formulating alternatives, developing mitigation measures, and prescribing monitoring:

1. Potential effects of the treatment on aquatic ecosystems (including wetlands and floodplains), terrestrial ecosystems, species diversity, and Forest Management Indicator species within these systems.
2. Potential effects of the treatment on threatened, endangered, sensitive, or locally rare species.
3. The effects of the proposed treatment on human health.

These significant issues are listed in the EA on page 7. Pursuant to the notice, comment, and appeal procedures for the National Forest System projects and activities (36 CFR 215), the EA for this project was mailed on February 20, 2001, to interested parties and to those who provided comments to the scoping letter. The formal 30 day notice and comment period began the day after a legal ad was published in the fronton Tribune on February 18, 2001. No comments were received on the EA. Therefore, the description of Alternative 1 (proposed action) and its effects remain the same.

C. ALTERNATIVES CONSIDERED

Alternative 1 – Pheromone Flakes Treatment (Proposed Action). In this alternative the Forest Service will cooperate with the State of Ohio to treat low-density gypsy moth populations on intermixed federal, state, and private lands in an IPM effort to slow the rate of spread of gypsy moth by treating 30,543 acres with pheromone flakes. The pheromone flakes would be applied at the rate of 15.2 grams of active ingredient per acre.

Alternative 2 – No Action. In this alternative no action would be taken to slow the rate of spread of gypsy moth. The populations would continue to be monitored by pheromone trapping.

Alternatives Eliminated from Detailed Study. Four other alternatives were considered in the EA, but eliminated from detailed study because they were not viable for this project.

D. DECISIONS

- 1) Based upon the analysis documented in the EA, the site-specific Forest Health Evaluations, the Biological Evaluations, and the information in the 1995 FEIS, it is our decision to select Alternative 1 — Pheromone Flake Treatment. Implementation of alternative 1 will treat 17,116 acres of the Ironton Ranger District with pheromone flakes as part of the Slow the Spread project. An aerial application will be conducted in late June 2001. The treatment will be followed by two years of post treatment monitoring using pheromone baited traps to evaluate treatment effectiveness. Follow up treatment of aerial applied pheromone flakes could be conducted in 2004 based upon the monitoring results of the traps.
- 2) Based upon the analysis documented in the EA, it is our decision to provide federal financial assistance and technical support to the Ohio Department of Agriculture to implement Alternative 1 on 13,427 acres of state and private land.

E. RATIONALE FOR DECISIONS

Male moth trapping surveys in the summer of 2000 indicated that a contiguous but relatively isolated low-density gypsy moth population occurs within the treatment area. Without intervention low-level gypsy moth populations will become established and contribute to the rate of spread of gypsy moths within the area. Pheromone flakes have been shown to be effective in managing low-density populations of gypsy moth by saturating the area with enough pheromone sources that the male is unable to find and mate with female moths.

We have selected alternative 1 because it will best meet the purpose and need described in the EA. It meets the objective of the Slow the Spread project and responds to the need for using integrated Pest Management in enhancing future forest health.

Alternative 2 (No Action) was not selected because it did not meet the purpose and need of this project. Taking no action would allow the spread of gypsy moth to continue unimpeded on public and private lands.

F. FINDINGS REQUIRED BY LAW

This action is consistent with the direction in the Wayne National Forest Land and Management Plan. The standards and guideline prescribes the use of integrated pest management methods to minimize or prevent the development of pest problems (p. 4-53).

G. FINDING OF NO SIGNIFICANT IMPACT

It is our determination that carrying out Alternative 1 (pheromone flake treatment) is not a major federal action, individually or cumulatively, and will not significantly affect the quality of the human environment. Therefore an Environmental Impact Statement is not needed. This finding includes consideration of the following factors concerning the context and intensity of the expected impacts of the selective alternative.

Context

Alternative 1 is within the context of the Wayne Forest Plan. The physical and biological effects are limited to the treatment area. In this area long and short term effects of the specific actions of Alternative I are not significant.

Intensity

1. Both beneficial and adverse impacts have been considered (EA, p. 14-16). Slow the spread of gypsy moth populations will be beneficial in preventing tree mortality.
2. There are not anticipated significant effects to public health and safety by this action. The 1995 FEIS, Appendix F – Human Health Risk Assessment states on page 9-5 that "the potential effects of disparlure cannot be assessed directly, except to indicate that plausible levels of exposure are far below levels that did not cause overt signs of toxicity in experimental mammals. By analogy to other insect attractants, the risks associated with exposure to disparlure are likely to be very low."
3. There are no significant effects on wetlands, floodplains, or Special Areas (Ewing memo of 2/2/01).
4. Based on involvement of resource specialist the proposed action is not highly controversial scientifically.
5. There are no known significant effects on the human environment that are highly uncertain or involve unique or unknown risks.
6. This action does not set a precedent for future actions.
7. There are no significant cumulative effects between this project and other past or reasonably foreseeable projects in the project area or adjacent areas.
8. The Forest Archaeologist determined that the undertaking will not affect any historic properties (Cramer, memo of 12/21/00).
9. The biological evaluation for animals stated that the project should not adversely affect any of the Federal Threatened or Endangered species, nor contribute to the loss of viability or cause to move toward federal listing of the Regional Sensitive Species (Flegel and Ewing memo of 1/11/01). The biological evaluation for plants stated that no federally listed plants are known to occur on National Forest land and that the project will have no effect on the continued viability of any Regional Forester's Sensitive Species (Olson memo of 2/15/01).
10. The proposed action does not threaten a violation of any federal, state, or local laws for the protection of the environment.

H. APPEAL RIGHTS

The decision pertaining to National Forest system lands is not subject to appeal pursuant to 36 CFR 215.8(a)(3) which states that actions for which notice and opportunity to comment have been published and on which no expression of interest has been received during the comment period, and on which the Responsible Official's decision does not modify the proposed action.

The decision pertaining to the treatment of state and private land is not subject to appeal pursuant to 36 CFR 215 and may be implemented immediately.

Implementation may occur immediately upon publication of the notice of the decision in the Ironton Tribune as provided in 36 CFR 215.9.

For questions regarding the EA contact: Philip Perry, Wayne National Forest, 13700 US Highway 33, Nelsonville, OH 45764, telephone 740-753-0101.

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37-o/
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